IN THE CLAIMS:

1.   (Once Amended) A storage system comprising:

a plurality of channel units that transfers data sent from an upper-level system and transfers data to said upper-level system;

a plurality of cache units which are connected to said plurality of channel units and in which data sent from said plurality of channel units is stored;

a control unit that is connected to said cache units, and transfers or receives data to or from said cache units;

a disk device in which data sent from said control unit is stored; and

a said plurality of paths connecting each channel unit to said plurality of cache units.

2.   (Original) A storage system according to Claim 1, wherein said plurality of paths includes a plurality of first paths that links a first cache unit included in said plurality of cache units to said plurality of channel units, and a plurality of second paths that links a second cache unit included in said plurality of cache units to said plurality of channel units.

3.   (Original) A storage system according to Claim 2, wherein said plurality of first paths and said plurality of second paths are independent of each other.

4.   (Original) A storage system according to Claim 2, wherein said plurality of first paths is dedicated to communication between said first cache unit and said plurality of channel units.

5.   (Original) A storage system according to Claim 4, wherein said plurality of second paths is dedicated to the communication between said second cache unit and said plurality of channel units.

6.   (Original) A storage system according to Claim 1, wherein among said plurality of paths, paths linking said plurality of channel units and a predetermined cache unit included in said plurality of cache units are not the same as paths linking said plurality of channel units and an other cache unit included in said plurality of cache units.

7.   (Original) A storage system according to Claim 2, wherein said plurality of first paths directly links said first cache unit to said plurality of channel units.

8. (Original) A storage system according to Claim 7, wherein said plurality of second paths directly links said second cache unit to said plurality of channel units.

9. (Original) A storage system according to Claim 2, wherein said plurality of first paths links said first cache unit to said plurality of channel units on a point-to-point basis.

10. (Original) A storage system according to Claim 9, wherein said plurality of second paths links said second cache unit to said plurality of channel units on a point-to-point basis.

11. (Original) A storage system according to Claim 1, wherein said disk device includes a plurality of disk drives, and said control unit is connected to said plurality of disk drives.

12. (Original) A storage system according to Claim 1, wherein said plurality of paths are signal lines linking said plurality of channel units and said plurality of cache units.

13. (Original) A storage system according to Claim 1, wherein said plurality of paths are used to communicate a reading request, which is issued from said upper-level system, from said

plurality of channel units to one of said plurality of cache units, and used to communicate data, which is read from said one of said plurality of cache units, to said plurality of channel units.

14.   (Original)   A storage system according to Claim 1, wherein said plurality of paths are used to communicate a writing request, which is issued from said upper-level system, and used to communicate data written from said plurality of channel units to one of said cache units.

15.   (Original)   A storage system according to Claim 1, wherein said plurality of paths includes a number of paths equal to a sum of a number of said plurality of channel units and a number of said plurality of cache units.

16.   (Original)   A storage system according to Claim 2, wherein said plurality of first paths includes a number of paths equal to a number of said plurality of channel units.

17.   (Original)   A storage system according to Claim 16, wherein a number of said plurality of second paths equals a number of said plurality of channel units.

18.   (Original)   A storage system according to Claim 1, wherein said plurality of paths includes a plurality of third paths that links a first channel unit included in said plurality of channel units to said plurality of cache units, and a plurality of fourth paths that links a second channel unit included in said plurality of channel units to said plurality of cache units.

19.   (Original)   A storage system according to Claim 18, wherein said plurality of third paths and said plurality of fourth paths are independent of each other.

20.   (Original)   A storage system according to Claim 18, wherein said plurality of third paths is dedicated to communication between said plurality of cache units and said first channel unit.

21.   (Original)   A storage system according to Claim 20, wherein said plurality of fourth paths is dedicated to the communication between said plurality of cache units and said second channel unit.

22.   (Original)   A storage system according to Claim 18, wherein said plurality of third paths directly links said plurality of cache units to said first channel unit.

23.   (Original)   A storage system according to Claim 22, wherein said plurality of fourth paths directly links said plurality of cache units to said second channel unit.

24.   (Original)   A storage system according to Claim 18, wherein said plurality of third paths links said plurality of cache units to said first channel unit on a point-to-point basis.

25.   (Original)   A storage system according to Claim 24, wherein said plurality of fourth paths links said plurality of caches to said second channel unit on a point-to-point basis.

26.   (Original)   A storage system according to Claim 18, wherein a number of said plurality of third paths equals a number of said plurality of cache units.

27.   (Original)   A storage system according to Claim 26, wherein a number of said plurality of fourth paths equals the number of said plurality of cache units.

28.   (Original)   A storage system according to Claim 1, wherein said plurality of paths includes a fifth path that links a first channel unit included in said plurality of channel units to a first cache unit included in said plurality of cache units, and said plurality of paths includes a sixth path that links said first channel unit to a second cache unit included in said plurality of cache units.

29.   (Original)   A storage system according to Claim 28, wherein said fifth path and said sixth path are independent of each other.

30.   (Original)   A storage system according to Claim 28, wherein said fifth path is dedicated to communication between said first cache unit and said first channel unit.

31.   (Original)   A storage system according to Claim 30, wherein said sixth path is dedicated to communication between said second cache unit and said first channel unit.

32.   (Original)   A storage system according to Claim 28, wherein said fifth path directly links said first cache unit to said first channel unit.

33.   (Original)   A storage system according to Claim 32, wherein said sixth path directly links said second cache unit to said first channel unit.

34.   (Original)   A storage system according to Claim 28, wherein said fifth path links said first cache unit to said first channel unit on a point-to-point basis.

35.   (Original)   A storage system according to Claim 34, wherein said sixth path links said second cache unit to said first channel unit on a point-to-point basis.

36.   (Original)   A storage system according to Claim 28, wherein a number of paths included as said fifth path and said sixth path equals a number of units included as said plurality of cache units.

37.   (Original)   A storage system according to Claim 1, wherein said plurality of paths includes a seventh path that links a first cache unit included in said plurality of cache units to a first channel unit included in said plurality of channel units, and an eighth path that links said first cache unit to a second channel unit included in said plurality of channel units.

38.   (Original)   A storage system according to Claim 37, wherein said seventh path and said eighth path are independent of each other.

39.   (Original)   A storage system according to Claim 37, wherein said seventh path is dedicated to communication between said first cache unit and said first channel unit.

40.   (Original)   A storage system according to Claim 39, wherein said eighth path is dedicated to communication between said first cache unit and said second channel unit.

41.   (Original)   A storage system according to Claim 37, wherein said seventh path directly links said first cache unit to said first channel unit.

42.   (Original)   A storage system according to Claim 41, wherein said eighth path directly links said first cache unit to said second channel unit.

43.   (Original)   A storage system according to Claim 37, wherein said seventh path links said first cache unit to said first channel unit on a point-to-point basis.

44.   (Original)   A storage system according to Claim 43, wherein said eighth path links said first cache unit to said second channel unit on a point-to-point basis.

45.   (Original)   A storage system according to Claim 37, wherein a number of paths included as said seventh path and said eighth path equals a number of units included as said plurality of channel units.

46.   (Original)   A storage system according to Claim 1, wherein said plurality of paths includes a ninth path that links a first channel unit included in said plurality of channel units to a first cache unit included in said plurality of cache units, and a tenth path that links a second

channel unit included in said plurality of channel units to a second cache unit included in said plurality of cache units.

47.   (Original)   A storage system according to Claim 46, wherein said ninth path and said tenth path are independent of each other.

48.   (Original)   A storage system according to Claim 46, wherein said ninth path is dedicated to communication between said first cache unit and said first channel unit.

49.   (Original)   A storage system according to Claim 48, wherein said tenth path is dedicated to communication between said second cache unit and said second channel unit.

50.   (Original)   A storage system according to Claim 46, wherein said ninth path directly links said first cache unit and said first channel unit.

51.   (Original)   A storage system according to Claim 50, wherein said tenth path directly links said second cache unit to said second channel unit.

52.   (Original)   A storage system according to Claim 46, wherein said ninth path links said first cache unit and said first channel unit on a point-to-point basis.

53.   (Original)   A storage system according to Claim 52, wherein said tenth path links said second cache unit to said second channel unit on a point-to-point basis.